

Greet Board

My name is _____. I am the chief of the dairy unit for the Regional Board.



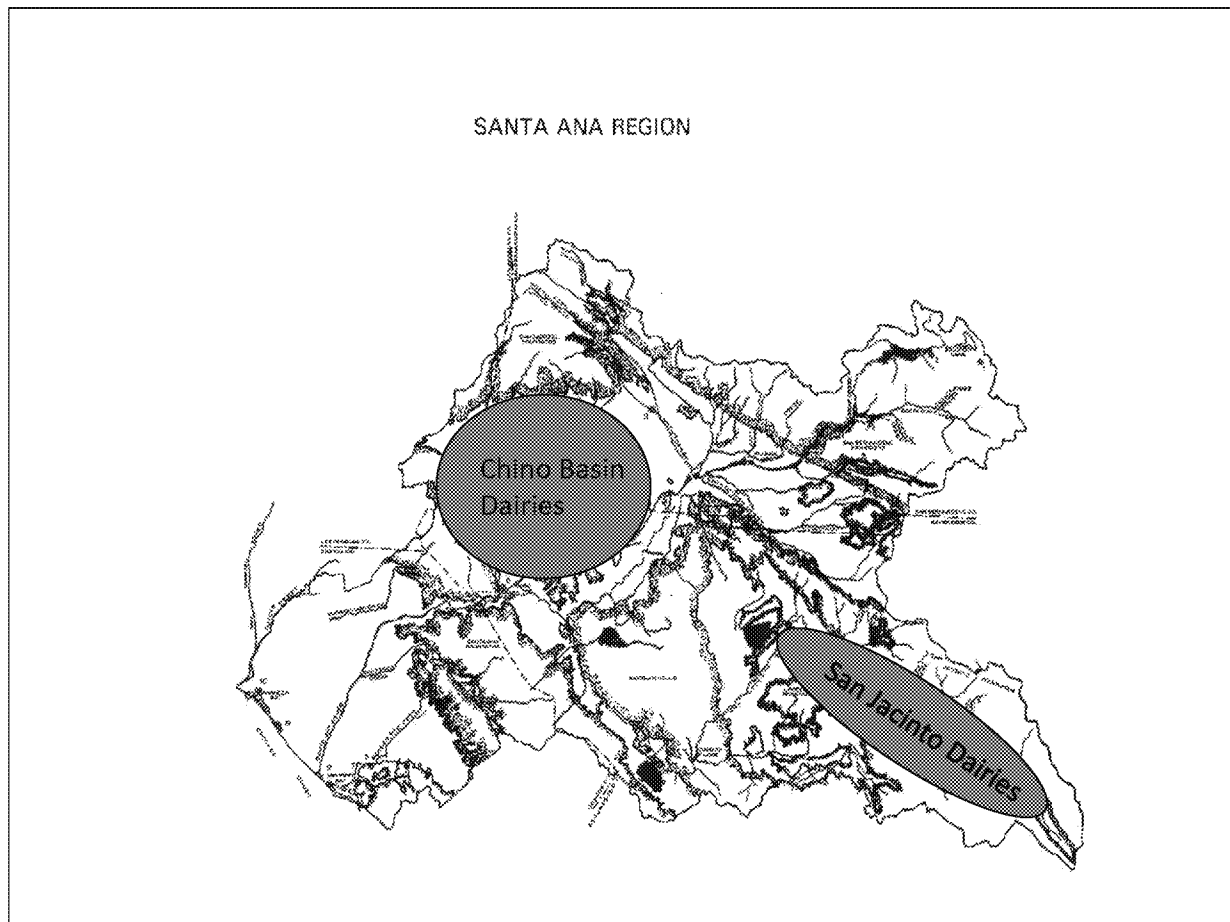
Staff felt it was important to provide you with an update of the dairy program since we are in the process of developing a new permit to replace the one that has recently expired.

This presentation is an information item. Staff intends to schedule a workshop at a future Board Mtg.

Staff have been working with industry representatives in an effort to work through the more controversial issues associated with the next permit.

I intend to touch on these issues in my presentation.

But first, since this may be an unfamiliar topic for some of the Board members, we thought it appropriate to provide you with a short history of dairy regulation within the Region.



There are two areas within the Region where dairies relocated to after their migration eastward from the Cypress and Downey areas.....Chino Basin.....and the San Jacinto area

The dairies in the Chino Valley (which was known in the 1950, 60's and 70's as the Chino-Corona Ag Preserve) overlays the Chino Groundwater Management Zones

The dairies in the San Jacinto River Valley overlay the Lakeview-Hemet North, San Jacinto Lower & Upper Pressure Groundwater Management Zones



In the past, the Chino-Corona Ag Preserve had the highest density of dairy animals in the world.

During this period of time there were as many as 500 dairies and dairy related facilities within the Region. Approx. 90% of those facilities were located in the Ag Preserve

As you can see by this aerial photo, the only physical barrier between dairies is either a road or a fence line

POLLUTANTS IN DAIRY WASTE (BIOMASS) CONSIST OF:

- **HIGH LEVELS OF BACTERIA**
- **DECOMPOSABLE MATERIAL (BOD & COD)**
- **SALTS (TOTAL DISSOLVED SOLIDS)**
- **NITROGEN & PHOSPHOROUS (NUTRIENTS)**

WASTE PRODUCTS HAVE BENEFICIAL APPLICATIONS



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Dairy wastes (that is manure) also have beneficial applications

However, they also emit odors, methane, nitrous oxide, carbon dioxide, antibiotics and ammonia.

Unless these wastes are regulated, their use and disposal could adversely impact surface and ground waters of the Region.



The Chino-Corona Ag Preserve was plagued with challenging drainage conditions.

The urban areas to their north contributed significant runoff that in some cases would cause a cascading effect as it washed into and through the Ag Preserve. Most of these areas lacked storm drain systems.

Runoff from the dairies would contribute manure to the overland flow.

This is a photo that was typical for the Ag Preserve area showing streets under flooding conditions.

This was not an uncommon occurrence as a result of storms prior to storm drain infrastructure improvements.

Fortunately, with infrastructure improvements, this flooding condition has been alleviated.

1972 - 1994

**DAIRIES AND DAIRY RELATED FACILITIES
(HEIFER AND CALF RANCHES) WERE
REGULATED BY INDIVIDUAL WASTE
DISCHARGE REQUIREMENTS (WDRs)**

**REGULATION BY INDIVIDUAL WDRs REQUIRED
MORE STAFF RESOURCES THAN WERE
AVAILABLE**



The Region began regulating the dairies in 1972.

Individual WDRs were adopted for dairies and dairy related facilities

Because of the number of dairies and their frequent change in operators, REGULATION BY INDIVIDUAL WDRs REQUIRED MORE STAFF RESOURCES THAN WERE AVAILABLE

1994 - 1999

**ORDER NO. 94-007 WAS ADOPTED IN MARCH 1994
AS A GENERAL NPDES PERMIT**

**CLEAN WATER ACT (CWA) DEFINES CERTAIN DAIRIES
AS CONCENTRATED ANIMAL FEEDING OPERATIONS
(CAFOs)**

**THIS WAS THE REGION'S FIRST ATTEMPT TO BRING
DAIRIES UNDER NPDES REGULATORY CONTROL**

THE PERMIT DESIGNATED ALL DAIRIES AS CAFOs



ORDER NO. 94-007 WAS ADOPTED IN MARCH 1994

This was a NPDES permit that put dairies and related facilities under one general permit. Most dairies in the Region discharge comingled stormwater (stormwater that has come in contact with process wastewater) to waters of the United States. Any discharge of pollutants to waters of the U.S. require an NPDES permit.

The CLEAN WATER ACT (CWA) DEFINES CERTAIN DAIRIES AS CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFOs)

THIS WAS THE REGION'S FIRST ATTEMPT TO BRING DAIRIES UNDER NPDES REGULATORY CONTROL

THE PERMIT DESIGNATED MOST DAIRIES AS CAFOs

1994 - 1999

**GENERAL NPDES PERMIT REQUIRED DAIRY
WASTEWATER & RUNOFF TO BE CONTAINED**

**A DISCHARGE ALLOWED ONLY IF ALL
WASTEWATER AND RUNOFF FROM A 25-YR ,
24-HR STORM EVENT WAS CONTAINED**

**MANURE APPLICATION TO CROPLAND WAS
LIMITED TO AN AGRONOMIC RATE**



The GENERAL NPDES PERMIT REQUIRED DAIRY WASTEWATER & RUNOFF TO BE CONTAINED

In accordance with the federal regulations, A DISCHARGE WAS ALLOWED ONLY IF ALL WASTEWATER AND RUNOFF UP TO AND INCLUDING A 25-YR , 24-HR STORM EVENT WAS CONTAINED

MANURE APPLICATION TO CROPLAND WAS LIMITED TO AN AGRONOMIC RATE

Any application on non-cropland was considered a disposal which was prohibited

1999 - 2007

ORDER NO. 99-011, WAS ADOPTED AUGUST 1999

THERE WERE 302 CAFOs WITH 307,000 ANIMALS

ORDER REQUIRED ALL CAFOs TO DEVELOP AND IMPLEMENT AN ENGINEERED WASTE MANAGEMENT PLAN (EWMP)

THEIR REQUIREMENTS INCLUDED:

- **THEY HAD TO BE PREPARED BY A PROFESSIONAL ENGINEER**
- **APPROVED BY EXECUTIVE OFFICER**
- **FULLY IMPLEMENTED AND CERTIFIED**



The expiration of Order No. 94-007 required the adoption of Order No. 99-011 in August 1999.

At the time of adoption, THERE WERE 302 CAFOs with 307,000 ANIMALS

The ORDER REQUIRED ALL CAFOs TO DEVELOP AND IMPLEMENT AN ENGINEERED WASTE MANAGEMENT PLAN (EWMP)

EWMPs were essentially hydrology studies for each facility that estimated with some accuracy the volume of wastewater and runoff that had to be contained on a CAFO.

THEIR REQUIREMENTS INCLUDED:

- THEY HAD TO BE PREPARED BY A PROFESSIONAL ENGINEER
- APPROVED BY EXECUTIVE OFFICER
- FULLY IMPLEMENTED AND CERTIFIED



WHY EWMPs MUST BE CERTIFIED & MAINTAINED



These photos depict examples of the importance of the EWMPs.

Containment ponds were inadequately sized and their capacities were easily exceeded.

In some instances, containment berms were intentionally breached in order to relieve accumulated runoff

1999 - 2007

**WITH SO MANY DAIRY ANIMALS, MANURE
DISPOSAL WAS A SIGNIFICANT ISSUE**

**DETERMINED THAT CHINO BASIN GROUNDWATER
MANAGEMENT ZONE LACKED ASSIMILATIVE
CAPACITY FOR SALT & NITRATES**

**EXPORT OF MANURE, APPLICATION LIMITED TO
CROPLAND & DESALTERS OFFSET SALT INPUTS IN
CHINO BASIN FROM CAFOs**



As you can imagine, manure management continued to be an issue in both areas where CAFOs were within the Region.

It had been DETERMINED THAT the CHINO BASIN GROUNDWATER MANAGEMENT ZONES LACKED ASSIMILATIVE CAPACITY FOR SALT & NITRATES

Thus, Restrictions were placed on the CAFOs to manage their manure accumulation

This caused the CFOs in the Ag Preserve to EXPORT much of their MANURE to other parts of the Region or outside the Region.

Its land APPLICATION was LIMITED TO CROPLAND that could not exceed agronomic rates

DESALTERS OFFSET the SALT INPUTS IN THE CHINO BASIN

2007 - 2012

**ORDER NO. R8-2007-0001 WAS ADOPTED
SEPTEMBER 2007**

**168 CAFOs IN OPERATION AT THE TIME OF
ADOPTION WITH APPROX. 251,000 ANIMALS
EWMP MAINTENANCE AND MANURE
MANAGEMENT REMAIN SIGNIFICANT ISSUES**



When previous NPDES permit expired, ORDER NO. R8-2007-0001 WAS ADOPTED SEPTEMBER 2007

At that time, 168 CAFOs IN OPERATION AT THE TIME OF ADOPTION WITH APPROX. 251,000 ANIMALS

EWMP MAINTENANCE AND MANURE MANAGEMENT REMAIN SIGNIFICANT ISSUES

CAFO PERMITS AND TMDLs

THERE ARE TWO APPROVED TMDLs THAT ARE APPLICABLE TO THE CAFOS:

- **MIDDLE SANTA ANA RIVER BACTERIA TMDL; AND**
- **CANYON LAKE/LAKE ELSINORE NUTRIENT TMDL**



When a surface waterbody is identified as not meeting the water quality objectives specified in the Basin Plan, that waterbody is considered as an impaired water under Section 303(d) of the Clean Water Act.

The Regional Board is then required to develop total maximum daily loads (the pollutant load allocation that can be discharged to this waterbody without violating the objectives) for the impaired waters to address the impairment.

The Board adopted the above TMDLs because of impairment of waterbodies within the Chino Basin and the San Jacinto area.

The surface waters in the Chino Basin area are impacted by high levels of bacteria and the waterbodies in the San Jacinto area are impacted by high nutrient levels.

Therefore, CAFOs in these basins must develop and implement appropriate control measures to address these impairments as per the approved TMDLs.

2007 - 2012

**PROHIBITED MANURE DISCHARGE TO LAND
WHERE UNDERLYING GROUNDWATER
LACKED ASSIMILATIVE CAPACITY
GROUNDWATER BASINS IN SAN JACINTO
WATERSHED LACKED ASSIMILATIVE CAPACITY
FOR SALTS AND NITRATES
PERMIT PROVIDED A TIME SCHEDULE FOR
COMPLIANCE WITH THIS REQUIREMENT**



The general permit PROHIBITED MANURE DISCHARGE TO LAND WHERE the UNDERLYING GROUNDWATER LACKED ASSIMILATIVE CAPACITY

When the Basin Plan was amended, it had been determined that the GROUNDWATER BASINS IN SAN JACINTO WATERSHED LACKED ASSIMILATIVE CAPACITY FOR SALTS AND NITRATES.

This has a direct impact on the dairies operating within in the watershed.

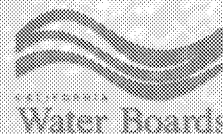
PERMIT PROVIDED A TIME SCHEDULE and milestones FOR COMPLIANCE WITH THIS REQUIREMENT

2007 - 2012

TMDL REQUIREMENTS WERE ALSO INCLUDED:

- MIDDLE SANTA ANA RIVER TMDL FOR BACTERIA
- SAN JACINTO WATERSHED TMDL FOR NUTRIENTS IN CANYON LAKE AND LAKE ELSINORE

DEVELOPMENT OF WORK PLANS WERE REQUIRED & MILESTONE TIME SCHEDULES ESTABLISHED



The TMDL requirements that had been adopted subsequent to adoption of Order No. 99-011 were incorporated into Order No. 2007-001. Those requirements included:

- MIDDLE SANTA ANA RIVER TMDL FOR BACTERIA
- SAN JACINTO WATERSHED TMDL FOR NUTRIENTS IN CANYON LAKE AND LAKE ELSINORE

The permit included requirements for the DEVELOPMENT OF WORK PLANS & TIME SCHEDULES FOR IMPLEMENTATION

THE NEXT NPDES PERMIT

**ORDER NO. 2007-0001 EXPIRED ON
SEPTEMBER 6, 2012**

**AS OF JANUARY 2012, THERE WERE 143
CAFOs WITH 187,000 ANIMALS**

**ISSUES THAT MUST BE DEALT WITH IN THE
NEXT GENERAL PERMIT INCLUDE:**

- **INCORPORATING NEW NPDES REGULATIONS
STEMMING FROM A RECENT COURT DECISION**
- **OPTIONS FOR REGULATING CAFOs**
- **OTHER CONCERNS AND ISSUES**



ORDER NO. 2007-0001 EXPIRED ON SEPTEMBER 6, 2012 and therefore, must be renewed.

AS OF JANUARY OF THIS YEAR, THERE WERE 154 CAFOs WITH 187,000 ANIMALS of all types including heifers and calves

The ISSUES THAT MUST BE DEALT WITH IN THE NEXT PERMIT INCLUDE:

- INCORPORATING NEW NPDES REGULATIONS STEMMING FROM A RECENT COURT DECISION. I'LL ELABORATE ON THESE ISSUES IN THE FOLLOWING SLIDES
- OPTIONS FOR REGULATING CAFOs
- and OTHER CONCERNS AND ISSUES

FIFTH CIRCUIT COURT OF APPEALS DECISION

**PRIOR TO DECISION, ALL CAFOs HAD TO
APPLY FOR NPDES PERMIT IF DISCHARGE
OCCURRED OR WAS PROPOSED**

***PORK PRODUCERS* CASE LIMITS THE
REQUIREMENT TO OBTAIN NPDES PERMIT
ONLY CAFOs THAT ACTUALLY DISCHARGE
MUST APPLY FOR AN NPDES PERMIT**



In 2011, the 5th Circuit Court of Appeals issued an important decision regarding how CAFOs are regulated under federal law. PRIOR TO THE DECISION, ALL CAFOs HAD TO APPLY FOR NPDES PERMIT IF DISCHARGE OCCURRED OR WAS PROPOSED

Because of the *PORK PRODUCERS* CASE THE REQUIREMENT TO OBTAIN an NPDES PERMIT is now limited

A CAFO is required to obtain a permit only if they are actually discharging to federal jurisdictional waters. The Santa Ana River and the San Jacinto River are considered federal jurisdictional waters.

The CAFO regulations have subsequently been changed to reflect this decision, and now ONLY CAFOs THAT ACTUALLY DISCHARGE MUST APPLY

OPTIONS FOR REGULATING CAFOs

**DUE TO FIFTH CIRCUIT COURT OF APPEALS
DECISION, OPTIONS MAY NEED TO BE DEVELOPED**

**WATER BOARD REGIONS 1, 2 & 3 HAVE ADOPTED
BOTH GENERAL NPDES AND GENERAL WDR
PERMITS**

OPTIONS BEING CONSIDERED:

- **REGULATE ALL UNDER GENERAL NPDES;**
- **REGULATE ALL UNDER WDRs; OR**
- **ADOPT BOTH NPDES and WDRs & ALLOW CAFOs
A CHOICE**



DUE TO FIFTH CIRCUIT COURT OF APPEALS DECISION, OPTIONS MAY NEED TO BE DEVELOPED in order to regulate the same dairies and dairy related facilities previously covered under general NPDES permits.

WATER BOARD REGIONS 1, 2 & 3 HAVE ADOPTED BOTH GENERAL NPDES AND GENERAL WDR PERMITS

OPTIONS BEING CONSIDERED by staff are:

- REGULATE ALL UNDER GENERAL NPDES (if the industry chooses to do that);
- REGULATE ALL UNDER WDRs; or
- ADOPT BOTH KINDS & ALLOW CAFOs A CHOICE

Something the dairy industry must keep in mind is...

Only NPDES permittees are allowed to discharge pollutants to federal jurisdictional waters. If a dairy is permitted under a WDR, no such discharge to jurisdictional waters can occur. A discharge without an NPDES permit would be a violation of the CWA, and could result in the imposition of civil liability or a 3rd party law suit.

OTHER CONCERNS AND ISSUES

MOST GROUNDWATER MANAGEMENT ZONES LACK ASSIMILATIVE CAPACITY FOR SALT (TDS & NITRATES)

STRIVING FOR INNOVATIVE AND ECONOMICALLY VIABLE CONTROL MECHANISMS

TMDL FOR BACTERIA WITHIN THE MIDDLE SANTA ANA RIVER

TMDL FOR NUTRIENTS IN THE CANYON LAKE AND LAKE ELSINORE WATERSHEDS

WASTE DISCHARGES FROM POULTRY FARMS MAY NEED TO BE REGULATED



As I have already mentioned, MOST GROUNDWATER MANAGEMENT ZONES LACK ASSIMILATIVE CAPACITY FOR SALTS (TDS & NUTRIENTS).

Order No. 2007-001 required the dairies in the San Jacinto Watershed to identify options to achieve compliance. They have proposed a number of options. The next step for them is to implement an option, or options, individually or with a watershed-wide program.

Staff will be working with stakeholders to develop INNOVATIVE AND ECONOMICALLY VIABLE CONTROL MECHANISMS

The next permit must also advance the dairy industry toward compliance with all the applicable TMDLs.

Based on a request by the stakeholders, staff is evaluating the need for permit coverage for the poultry industry in the Region

TENTATIVE SCHEDULE

COMPLETE ADMINISTRATIVE DRAFT NPDES PERMIT – OCT. 31ST

MEET WITH STAKEHOLDERS – EARLY NOV.

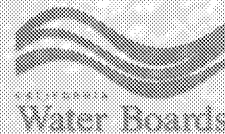
1ST DRAFT OF GENERAL NPDES PERMIT – MID-NOV.

**1ST BOARD WORKSHOP TO RECEIVE PUBLIC COMMENT –
DEC. 14, 2012**

MEET WITH STAKEHOLDERS – MID-DEC.

FINAL NPDES DRAFT PERMIT – MID-JAN. 2013

BOARD ADOPTION HEARING – MARCH 2013



Staff proposes this tentative schedule that assumes the adoption of only a general NPDES permit.

Staff intends to continue to meet with stakeholders to discuss the issues of the next permit or permit options.

Review schedule